

Cross reference to related applications

5 This application <sup>is a continuation of S.N. 09/813,996, now abandoned,</sup> claims the priority of  
10 European patent application 00 105 910.4, filed March 22,  
2000, the disclosure of which is incorporated herein by  
reference in its entirety.

Background of the invention

The present invention relates to an admixture for cementitious compositions which reduces the drop in fluidity with time.

15 High range water reducing admixtures, also known as superplasticisers, for cementitious compositions such as cement pastes, mortars or concretes, are quite well known and used already since the late 1960's. They improve the workability of the composition and allow a  
20 reduction of the water to cement ratio. The improvement of workability can also be attained by use of more water but this influences negatively the properties of the cementitious composition in the hardened state e.g. the tensile and compressive strengths, resistance to frost,  
25 resistance to deicing salts, waterproofness, resistance to abrasion and chemical durability. Examples for high range water reducers are salts of naphthalene sulfonic acid condensates or salts of melamine sulfonic acid condensates. These polymers suffer from the problem of  
30 drastic loss of fluidity of the cementitious composition, with time. This loss of workability is a big problem for applications where the cementitious composition like concrete, has to be transported over longer distances. Other examples of superplasticizers are copolymers of  
35 maleic acid or polyglycol esters thereof as mentioned in EP 291073, EP 373621, EP 306449, EP 850894 which all show reduced slump-loss. But maleic acid copolymers are known